REMARKS

The Examiner has stated that the application, as filed, is subject to a restriction requirement and requires an election of one of six claim groupings. The Examiner has divided the claims of the pending application into six groups that "... are presumed to represent an independent and distinct invention, subject to a restriction requirement ...." *Office Action, pg 2 ln 10-11.* Specifically, the Examiner suggests that Group I consists of Claims 1-2, 5-12, 15-24, and 26-29 comprising SEQ ID NO:44 DNA compositions (Class 356 Subclass 23.6); Group II consists of 1-2, 5-12, 15-24, and 26-29 comprising SEQ ID NO:49 DNA compositions (Class 356 Subclass 23.7); Group III consists of Claims 3, 13, 25, and 30 comprising SEQ ID NO:44 protein products (Class 530 Subclass 370); Group IV consists of Claims 3, 13, 25, and 30 comprising SEQ ID NO:49 protein products (Class 530 Subclass 371); Group V consists of Claims 4 and 14 comprising antibodies directed to SEQ ID NO:44 protein products (Class 530 Subclass 387.1); and Group VI consists of Claims 4 and 14 comprising antibodies to SEQ ID NO:49 protein products (Class 530 Subclass 387.1).

The Applicants presently traverse the restriction between Groups I & II (*infra*). The Applicants reserve the right to request reconsideration of the restriction between Groups III & IV and Groups V and VI.

I. Applicants Request Rejoinder Of Groups I & II

The Examiner provides only a most cursory and conclusory statement regarding the proposed restriction between Groups I and II:

> The purified DNA, RNA, vector, host cell and transgenic plants of invention I differ in structure from the purified DNA, RNA vector, host cell and transgenic plants of invention II.

Restriction Requirement pg. 3. The Applicants note that the Examiner has made no mention that any alleged differences between SEQ ID NO:44 and SEQ ID NO:49 will create 'an undue search burden".

The Examiner must show, absent a restriction, that there is an undue search burden. "... a serious burden on the examiner may be *prima facie* shown if the examiner shows by **appropriate explanation** either separate classification, separate status in the art, or a different field of search ... " *MPEP § 803* II. ¶ 4 [emphasis added]. This

standard is not met in regards to the difference between Group I and II because the Examiner has not provided any "appropriate explanation" for the separate classifications. *MPEP § 803 ¶ 2* ("Examiners must provide reasons and/or examples to support conclusions ... to support the requirement ..."). The Examiner has only repeated the definitions of a restriction requirement but has not EXPLAINED WHY these standards are applicable to the present claims. The Applicants, therefore, argue that there is no *prima facia* showing of an undue search burden.

The Examiner is reminded that PTO decisions are reviewed using the standard set forth in the *Administrative Procedure Act*, 5 U.S.C. § 706. *Dickinson v. Zurko*, 527 U.S. 150, 154 (1999). Under that statute, actions are set aside that are arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. Moreover, factual findings are set aside that are unsupported by substantial evidence. *In re McDaniel*, 293 F.3d 1379, 1382 (Fed. Cir. 2002).

The Applicants point out that both SEQ ID NO:s 44 and 49 are *Bta1* genes, therefore these nucleic acid sequences are related.

II. More Than One Sequence Is Not An Undue Burden

The Examiner is refusing to search Claim 1 which reads "A composition comprising a purified DNA having an oligonucleotide sequence selected from the group consisting of SEQ ID NO:44 and SEQ ID NO:49. Conseqeuntly, Applicant's Claim 1 only presents two (2) sequences recited as a Markush group.

The Applicants' Markush group member composition comports with the standard MPEP guidelines associated with evaluating a Restriction Requirement:

> The members of the Markush group ... ordinarily must belong to a recognized physical or chemical **class** or to an art-recognized **class**.

MPEP 803.02: Markush Claims [emphasis added]. In Claim 1, SEQ ID NO:44 and SEQ ID NO:49 meet the "physical/chemical/art-recognized class" requirement. Nucleotide sequences are physically and chemically within the same class, and are recognized by those having ordinary skill in the art as belonging to the same class. Further, both SEQ ID NO:44 and SEQ ID NO:49 of Claim 1 are described as encoding portions of an art-recognized *Bta1* enzyme "S-adenosylmethionine:diacylglycerol-3-amino-3-carboxypropyl transferase" (*Applicants' Specification pg. 17 ln 20-22*). The Examiner is improperly attempting to redefine scientific dogma by arguing that nucleic acids of

different sequences belong to a different physical and/or chemical class. Such an assertion is scientifically unfounded.

The Examiner is reminded that even the USPTO Director has:

> ... decided *sua sponte* to partially waive the requirements of of 37 CFR 1.141 *et seq* and permit a reasonable number of such nucleotide sequences to be claimed in a single application. See 1192 O.G. 68 (November 19, 1996) ... It has been determined that normally ten sequences constitute a reasonable number for examination purposes. Accordingly, in most cases, up to ten independent and distinct nucleotide sequences will be examined in a single application without restriction.

MPEP 803.4 Nucleotide Sequences [emphasis added]. Clearly, the Examiner has restricted the present invention in a manner that even the Director considers unreasonable.

Further, the Applicant's Markush group member number comports with the standard guidelines for not requiring a Restriction Requirement:

> If the members of the Markush group are sufficiently few in number or so closely related that a search and examination of the entire claim can be made without serious burden, the examiner **must** examine all the members of the Markush group in the claim on the merits, even though they may be directed to independent and distinct inventions ...

MPEP 803.02: Markush Claims [emphasis added]. The Applicants argue that two (2) members of Claim 1 meet the intent of "sufficiently few in number" such that the Examiner is not faced with any undue burden. Further, as described above, these Markush elements meet the "closely related" requirement because both sequences in Claim 1 are nucleic acids. The Applicants' point to the underscored sentence above to reiterate that it is not relevant if the Examiner continues to believe that independent and distinct inventions are still present, the pending Restriction Requirement is, by law, unreasonable and must be withdrawn. Therefore, the Examiner has not demonstrated that Groups I and II are in "... a different field of search." *MPEP § 808.02.*

III. Default Election

The Applicants provide an election of the Examiners' offered groups only because required to do so under 35 U.S.C. § 121. If the Examiner refuses to rejoin Groups I and II, the Applicants choose Group I.

In order to assist the Examiner in this search, the Applicants have amended Claims 1, 11, 21, and 26 to clarify this relationship. The Applicants specification provides support for these amendments, for example:

> The genomic DNA sequence of *C. reinhardtii Bta1* is set forth herein as SEQ ID NO:43, while the cDNA sequence is set forth as SEQ ID NO:44 ... (pg. 69 ln 1-3)

and,

> ... the inventors contemplate that the protein functions similarly to the Bta1 protein from *Chlamydomonas reinhardtii,* and hence the gene has been termed *N. crassa Bta1.* The coding region of the gene is provided herein as SEQ ID NO: 49 ... (pg 70 ln 10-13)

CONCLUSION

The Applicants believe that the arguments and claim amendments set forth above traverse the Examiner's restriction between Group I and II. Should the Examiner believe that a telephone interview would aid in the prosecution of this application, the Applicants encourage the Examiner to call the undersigned collect at 617.984.0616.

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